

Please type a plus sign (+) inside this box ☒

PTO/SB/01 (12-97)

Approved for use through 9/30/02. OMB 0651-0032  
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)☒ Declaration  
Submitted  
with Initial  
Filing OR ☐ Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

Attorney Docket Number	STL9683
First Named Inventor	Min, ShuangQuan
COMPLETE IF KNOWN	
Application Number	
Filing Date	
Group Art Unit	
Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Feed-Forward Compensation of Cage Frequency Using A Reference Head In A  
Servo-Writer

the specification of which (Title of the invention)

☒ is attached hereto  
OR☐ was filed on (MM/DD/YYYY) as United States Application Number or PCT International

Application Number and was amended on (MM/DD/YYYY) (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 356(b) of any foreign application(s) for patent or inventor's certificate, or 366(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT International application having a filing date before that of the application on which priority is claimed

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto

I hereby claim the benefit under 35 U.S.C. 110(e) of any United States provisional application(s) listed below

Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto
60/211,550	06/14/2000	

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐PTO/SB/01 (12-97)  
Approved for use through 03/30/00 OMB 0651-0032  
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**DECLARATION — Utility or Design Patent Application**

I hereby claim the benefit, under 35 U.S.C. 120 of any United States application(s), or 35(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02C attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

☐ Customer Number 

OR

☒ Registered practitioner(s) name(s)/registration number listed below

Place Customer  
Number Bar Code  
Label here

Name	Registration Number	Name	Registration Number
Jonathan E. Olson	41,231	Edward P. Heller III	29,075
Shawn B. Dempster	34,321		
Derek J. Berger	45,401		

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: ☐ Customer Number or Bar Code Label  OR ☒ Correspondence address below

Name	John R. Wahl, Merchant & Gould		
Address	1400 Independence Plaza		
Address			
City	Denver	State	CO
		ZIP	80265-0100
Country	USA	Telephone	303-357-1656
		Fax	303-357-1671

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:	<input type="checkbox"/> A petition has been filed for this unsigned inventor		
Given Name (first and middle (if any))	Family Name or Surname		
ShuangQuan	Min		
Inventor's Signature	<i>Min Shuang</i>		Date 2/9/01
Residence: City	Singapore	State	Country Singapore
		Citizenship	China
Post Office Address	Blk 342, #07-178, Clementi Avenue 5		
Post Office Address			
City	Singapore	State	ZIP 120342
		Country	Singapore

☒ Additional inventors are being named on the 2 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Please type a plus sign (+) inside this box → ☐

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/02A (3-87)  
Approved for use through 8/30/98 OMB 0651-0032  
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

## DECLARATION

ADDITIONAL INVENTOR(S)  
Supplemental Sheet  
Page 1 of 2

Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
KianKeong				Ooi			
Inventor's Signature				Date	25/5/01		
Residence: City	Singapore	State		Country	Singapore	Citizenship	Malaysia
Post Office Address	Blk 249, Hougang Ave. 3, #08-404						
Post Office Address							
City	Singapore	State		ZIP	530249	Country	Singapore
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
Ricky WeiWatt				Yeo			
Inventor's Signature				Date	25/5/01		
Residence: City	Singapore	State		Country	Singapore	Citizenship	Singapore
Post Office Address	Blk 402, #06-246, Clementi Avenue 1						
Post Office Address							
City	Singapore	State		ZIP	120402	Country	Singapore
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
WeiSung				Lee			
Inventor's Signature				Date	25/5/01		
Residence: City	Singapore	State		Country	Singapore	Citizenship	Malaysia
Post Office Address	Blk 3, Dover Road, #12-364						
Post Office Address							
City	Singapore	State		ZIP	130003	Country	Singapore

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/02A (3-87)  
 Approved for use through 8/30/98 OMB 0651-0032  
 Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE  
 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

## DECLARATION

ADDITIONAL INVENTOR(S)  
 Supplemental Sheet  
 Page 2 of 2

Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
BengWec				Quak			
Inventor's Signature				Date			
Residence: City		Singapore		State		Country: Singapore	
Post Office Address		130, Lorong L, Telok Kurau					
Post Office Address		12, Lor 14 Geylang, #07-10					
City		Singapore		State		ZIP 42 5566	
Country		Singapore		State		ZIP 42 5566	
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
ChiapHeok				Ang			
Inventor's Signature				Date			
Residence: City		Singapore		State		Country: Singapore	
Post Office Address		46, Eastwoor Road, #03-11					
Post Office Address							
City		Singapore		State		ZIP 486356	
Country		Singapore		State		ZIP 486356	
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
Inventor's Signature				Date			
Residence: City				State		Country	
Post Office Address							
Post Office Address							
City				State		Country	


Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

Please type a plus sign (+) inside this box →

PTO/SB/02A (3-97)  
Approved for use through 9/30/98 OMB 0661-0032  
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE  
is required to respond to a collection of information unless it contains a

## DECLARATION

ADDITIONAL INVENTOR(S)  
Supplemental Sheet  
Page 2 of 2

Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
Beng Wee				Quak			
Inventor's Signature				Date			
Residence: City		Singapore		State		Country Singapore	
Post Office Address		12, Lor 14 Geylang, #07-10					
Post Office Address							
City		Singapore		ZIP		Country Singapore	
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
Chiap Heok				Ang			
Inventor's Signature				Date		24/5/01	
Residence: City		Singapore		State		Country Singapore	
Post Office Address		46, Eastwood Road, #03-11					
Post Office Address							
City		Singapore		ZIP 486356		Country Singapore	
Name of Additional Joint Inventor, if any:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))				Family Name or Surname			
Inventor's Signature				Date			
Residence: City				State		Country	
Post Office Address							
Post Office Address							
City				ZIP		Country	

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patents and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO Assistant Commissioner for Patents, Washington, DC 20231.**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):	ShuangQuan Min et al.		
Serial No.:		Examiner:	
Filed:	Enclosed Herewith	Group Art Unit:	
Title:	FEED-FORWARD COMPENSATION OF CAGE FREQUENCY USING A REFERENCE HEAD IN A SERVO-WRITER		
Docket:	SEA9683/40176.44USU1		

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
(REVOCATION OF PRIOR POWERS)**

As assignee of record of the entire interest of the above identified application,  
**REVOCATION OF PRIOR POWERS OF ATTORNEY**  
all powers of attorney previously given are hereby revoked and

**NEW POWER OF ATTORNEY**

the following practitioners/patent agent are hereby appointed to prosecute and transact all business in the Patent and Trademark Office connected therewith.

Shawn B. Dempster, Registration No. 34,321	Edward P. Heller, III, Registration No. 29,075
Jonathan E. Olson, Registration No. 41,231	Raghunath S. Minisandram, Registration No. 38,683
Derek J. Berger, Registration No. 45,401	Leland D. Schultz, Registration No. 30,322
Kirk A. Cesari, Registration No. 47,479	Carol I. Bordas, Registration No. 37,284
Mitchell K. McCarthy, Registration No. 38,794	

And members of the firm of Merchant & Gould P.C.

Albrecht, John W.	Reg. No. 40,481	Holzer, Jr., Richard J.	Reg. No. 42,668
Anderson, Gregg I.	Reg. No. 28,828	Johnston, Scott W.	Reg. No. 39,721
Batzli, Brian H.	Reg. No. 32,960	Kadievitch, Natalie D.	Reg. No. 34,196
Beard, John L.	Reg. No. 27,612	Karjeker, Shaukat	Reg. No. 34,049
Berns, John M.	Reg. No. 43,496	Kettelberger, Denise	Reg. No. 33,924
Black, Bruce E.	Reg. No. 41,622	Keys, Jeramie J.	Reg. No. 42,724
Branch, John W.	Reg. No. 41,633	Knearl, Homer L.	Reg. No. 21,197
Bremer, Dennis C.	Reg. No. 40,528	Kowalchuk, Alan W.	Reg. No. 31,535
Bruess, Steven C.	Reg. No. 34,130	Kowalchuk, Katherine M.	Reg. No. 36,848
Byrne, Linda M.	Reg. No. 32,404	Lacy, Paul E.	Reg. No. 38,946
Carlson, Alan G.	Reg. No. 25,959	Larson, James A.	Reg. No. 40,443
Caspers, Philip P.	Reg. No. 33,227	Liepa, Mara E.	Reg. No. 40,066
Chiapetta, James R.	Reg. No. 39,634	Lindquist, Timothy A.	Reg. No. 40,701
Clifford, John A.	Reg. No. 30,247	Lycke, Lawrence E.	Reg. No. 38,540
Coldren, Richard J.	Reg. No. 44,084	McAuley, Steven A.	Reg. No. 46,084
Daignault, Ronald A.	Reg. No. 25,968	McDonald, Daniel W.	Reg. No. 32,044
Daley, Dennis R.	Reg. No. 34,994	McIntyre, Jr., William F.	Reg. No. 44,921
Dalglish, Leslie E.	Reg. No. 40,579	Mueller, Douglas P.	Reg. No. 30,300
Daulton, Julie R.	Reg. No. 36,414	Pauly, Daniel M.	Reg. No. 40,123
DeVries Smith, Katherine M.	Reg. No. 42,157	Phillips, John B.	Reg. No. 37,206
DiPietro, Mark J.	Reg. No. 28,707	Plunkett, Theodore	Reg. No. 37,209
Edell, Robert T.	Reg. No. 20,187	Prendergast, Paul J.	Reg. No. 46,068
Epp Ryan, Sandra	Reg. No. 39,667	Pytel, Melissa J.	Reg. No. 41,512
Glance, Robert J.	Reg. No. 40,620	Qualey, Terry	Reg. No. 25,148
Goggin, Matthew J.	Reg. No. 44,125	Reich, John C.	Reg. No. 37,703
Golla, Charles E.	Reg. No. 26,896	Reiland, Earl D.	Reg. No. 25,767
Gorman, Alan G.	Reg. No. 38,472	Schmaltz, David G.	Reg. No. 39,828
Gould, John D.	Reg. No. 18,223	Schuman, Mark D.	Reg. No. 31,197
Gregson, Richard	Reg. No. 41,804	Schumann, Michael D.	Reg. No. 30,422
Gresens, John J.	Reg. No. 33,112	Scull, Timothy B.	Reg. No. 42,137
Hamre, Curtis B.	Reg. No. 29,165	Sebald, Gregory A.	Reg. No. 33,280
Hillson, Randall A.	Reg. No. 31,838		

109090-43857360

Skoog, Mark T.  
Spellman, Steven J.  
Stoll-DeBell, Kirstin L.  
Sumner, John P.  
Swenson, Erik G.  
Tellekson, David K.  
Trembath, Jon R.  
Underhill, Albert L.  
Vandenburgh, J. Derek

Reg. No. 40,178  
Reg. No. 45,124  
Reg. No. 43,164  
Reg. No. 29,114  
Reg. No. 45,147  
Reg. No. 32,314  
Reg. No. 38,344  
Reg. No. 27,403  
Reg. No. 32,179

Wahl, John R.  
Weaver, Karrie G.  
Welter, Paul A.  
Whipps, Brian  
Wickhem, J. Scot  
Williams, Douglas J.  
Witt, Jonelle  
Wu, Tong  
Xu, Min S.  
Zeuli, Anthony R.

Reg. No. 33,044  
Reg. No. 43,245  
Reg. No. 20,890  
Reg. No. 43,261  
Reg. No. 41,376  
Reg. No. 27,054  
Reg. No. 41,980  
Reg. No. 43,361  
Reg. No. 39,536  
Reg. No. 45,255

CHANGE OF ATTORNEY'S/AGENT'S ADDRESS IN APPLICATION

Merchant & Gould P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903

STATEMENT UNDER 37 CFR 3.73(b)


Seagate Technology LLC states that it is the Assignee of Entire Interest in the patent application/patent identified above by virtue of an Assignment from the inventor(s) of the patent application/patent identified above. A copy of the Assignment is attached and/or was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_. The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the Assignee.

Respectfully submitted,

SEAGATE TECHNOLOGY LLC  
(Assignee of Entire Interest)

29 MAY '01

Date

  
Jonathan E. Olson, Reg. No. 41,231  
Patent Attorney  
SEAGATE TECHNOLOGY LLC  
Intellectual Property Dept. - CO2LG  
389 Disc Drive  
Longmont, Colorado 80503  
(720) 684-2295 (telephone)  
(720) 684-2588 (facsimile)

109090-48852860

# ASSIGNMENT

Attorney Docket No. : 40176.44USU1

Seagate Docket No. : STL9683

WHEREAS, I/we, ShuangQuan Min of Blk 342, #07-178, Clementi Avenue 5, Singapore, 120342; KianKeong Ooi of Blk 249, Hougang Ave 3, #08-404, Singapore, 530249; Ricky WeiWatt Yeo of Blk 402, #06-246, Clementi Avenue 1, Singapore, 120402; WeiSung Lee of Blk 3, Dover Road, #12-364, Singapore, 130003; BengWee Quak of 130, Lorong L, Telok Kurau, Singapore, 425566; and ChiapHeok Ang of 46, Eastwoor Road, #03-11, Singapore, 486356 are the inventor(s) of an invention entitled Feed-Forward Compensation of Cage Frequency Using A Reference Head In A Servo-Writer that is the subject matter of: (check all that apply)

- ☒ a provisional application for Letters Patent which is identifiable in the United States Patent and Trademark Office by Application No. 60/211,550 filed on June 14, 2000;
- ☒ an application for Letters Patent which is identifiable in the United States Patent and Trademark Office by Application No. \_\_\_\_\_ filed on \_\_\_\_\_ and/or executed on even date herewith: and
- ☐ an international application for Letters Patent filed pursuant to the Patent Cooperation Treaty which is identifiable in the United States Receiving Office by Application No. \_\_\_\_\_ filed on \_\_\_\_\_; and/or executed on even date herewith:

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 920 Disc Drive, Scotts Valley, California, 95066 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/we transfer to Assignee, its successors and assigns, my/our entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I/we authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I/We authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I/We further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I/We represent to the Assignee, its successors and assigns, that I/we have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I/We, my/our executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.



Min Shy

ShuangQuan Min(Inventor)

Subscribed and sworn to before me at Longmont, Colorado, a witness, this 29<sup>th</sup> day of May, 2001.

James Smith  
Witness

KianKeong Ooi(Inventor)

Subscribed and sworn to before me at SEAGATE S.P., a witness, this 25 day of May, 2001.

Liu Kexiu  
Witness

Ricky Wei  
Ricky WeiWatt Yeo(Inventor)

Subscribed and sworn to before me at SEAGATE SCIENCE PARK, a witness, this 25 day of May, 2001.

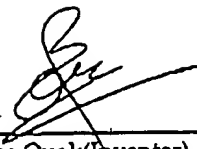
Teng Jack Ming Joo  
Witness

WeiSung Lee(Inventor)

Subscribed and sworn to before me at SEAGATE SCIENCE PARK, a witness, this 25 day of MAY, 2001.

June  
Witness  
Ang Dgunaeddy

0907584-060501

  
BengWee Quak(Inventor)

Subscribed and sworn to before me at Sengate, Science Park a witness, this 25 day  
of May 2001.

DING Mingzhong  
Witness

\_\_\_\_\_  
ChiapHeok Ang(Inventor)

Subscribed and sworn to before me at \_\_\_\_\_ a witness, this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Witness

09275234.050501

BengWee Quak(Inventor)

Subscribed and sworn to before me at  
day of \_\_\_\_\_, 20\_\_\_\_.

, a witness, this \_\_\_\_

Witness



ChlapHeok Ang(Inventor)

Subscribed and sworn to before me at  
day of May, 2001.Singapore, a witness, this 24<sup>th</sup>

Witness



Lim MU CHONG

T09090-18852860